lime with carbonate of potash until ammonia ceases to be evolved, by which treatment the magnesia is gradually precipitated in the state of carbonate of magnesia. This precipitate should then be collected on a filter and washed with hot water. The washing should not be continued too long, because carbonate of magnesia is not quite insoluble in water. The precipitate is then dried, and strongly ignited for a pretty long time, in order to expel the carbonic acid: what is left is pure magnesia, which may then be weighed.

Under head of Coal Gas, we observe a quotation from THE BUILDER; but our limits only allow us here further to remark, that although this volume has somewhat the air of a trade speculation for the sale of chemical instruments, &c., being published by manufacturers of such instruments, to whom readers are referred for apparatus, the author, who also advertises himself in it as a lecturer on analytical chemistry, appears to have really done his subject justice. At the end of the volume are a glossary of terms and an elementary treatise or appendix on Chemical Classification and Nomenclature,—both of them certainly requisite and useful appendages to such a volume.

Miscellanea.

ELECTRO-TELEGRAPHIC PROGRESS.—The submarine line from Dover to Calais is so far ready that an experiment in the conveyance of messages is to come off in a few days. It is said to have been already partially tested.—— The *Mining Journal* avers that application will be made in the next session of Parliament for bills of incorporation for two new telegraph companies, in addition to the one which has just carried its struggle with the old company to a successful issue. The law expenses of the latter for last half-year alone are said to be about 5,000*l*.——"A paragraph," says the *Birmingham Journal*, "is going the round, in which some improvements of the electric telegraph are detailed. So accurately are messages transmitted, that "dots, commas, stops, accents, and breaks are all in their places." We beg to submit that this is nothing compared to what can be effected by the telegraph which transmits our Friday evening's despatch from London. The "stops" last week, were incessant, the "breaks" continuous, and the transpositions of the most remarkable character. Without shaking the constitution to the base, the Telegraph Company placed the Chancellor of the *Exchequer* on the Woolsack, and effected quite a revolution in the English language in their report of the proceedings of Parliament. This correctness, however, is not so remarkable as the rapidity with which the operation is performed. The House of Commons met at twelve o'clock on Friday, the 26th, and the scene consequent upon the application of Baron Rothschild, about which everybody was desirous of hearing, ensued. The first intelligence received here was through the medium of the London evening papers, which came jogging down with the express train at 8 p.m., and the telegraphic report of a small portion of the morning's business came toiling in at the early hour of 10.30 p.m., accomplishing the distance in the extraordinary period of between nine and ten hours. The close of the Parliamentary business never reached us at all, having probably turned in for the night in some of the insulators south of Rugby. We have been compelled to make this transaction public, inasmuch as no notice is taken of private representations, and as we are expected to pay for telegraphic facilities, and have led our readers to expect that they shall have them, we beg leave to put the saddle on the right horse, by exposing the erratic tricks of this seemingly irresponsible and unaccountable public company, and the improvements they have effected in telegraphic communication."

DESTRUCTION OF THE MORMON TEMPLE AT NAUVOO.—The great temple at Nauvoo, one of the architectural curiosities in the United States, was destroyed by a hurricane on the 27th May. This stupendous edifice was erected by the Mormon religious sect in 1845, and was partially burned in October, 1848, leaving only its four walls standing, the timber and wood-work having been consumed by the flames. The work of re-building had made some progress.

INTIMIDATING WORKMEN.—A man named Lewis was lately convicted at the Liverpool Police Court of threatening or endeavouring to intimidate workmen in the employ of Mr. Hughes, cabinet maker, Bold-street, there. Disputes had arisen with Mr. Hughes's men and the Cabinet-makers' Society, relative to Mr. Hughes employing his men at piece prices, instead of paying them by the day. It appeared from the statement of Mr. Hughes that deputations from the union had frequently waited upon him to induce him to alter his system, that picquets were stationed about his premises, and that his men were intercepted. The defendant was liberated on his own recognizances of 130*l*., and the security of his solicitor for the same amount, to be brought up on a day named to receive sentence. In another case connected with the former a conspiracy was pretty clearly established, but it was proved in evidence that the nominal complainant (one of Mr. Hughes's workmen) was drunk on the occasion referred to in his evidence.

THE BRITISH ASSOCIATION FOR ADVANCEMENT OF SCIENCE have held a fairly successful meeting in Edinburgh. In the mechanical section on Monday a noticeable paper was read by Mr. George Beattie, on a new door-spring, the motive power of which is the pressure of the atmosphere. In this invention, the action of the door in opening is made to draw a piston partially out of a closed cylinder, and the pressure of the atmosphere, in forcing the piston back again to its seat, causes the door to shut. The power obtained in this manner was illustrated by the exhibition of a full-sized apparatus, which required a considerable effort to overcome the resistance of the atmosphere.

STEAM BOILERS: IRON *v.* COPPER.—A New York correspondent of the *Mechanics' Magazine* controverts the idea that copper is better than iron for boilers, and hence he deprecates the immense waste of money involved in the use of copper in the place of iron. The argument is based on the experiments principally of Messrs. Biot and Despretz, proving that copper is a better conductor of heat than iron. "The term 'good conductor,'" says the writer, "has been applied erroneously, because it was intended to convey the idea that it would convey or conduct the heat or caloric of the fire through itself into the water on the other side—which does not apply to copper, but to iron; which is confirmed by the well-known fact that the absorbent and radiative powers are always equal in the same metal, and are far greater in iron than in copper, while the latter metal is, in the same ratio, the best reflector; for reflection is inversely as radiation, as proved by Leslie and others. The power of reflection then appears to control that of radiation, &c., to confine the caloric within the metallic (copper) surfaces, or at least within that depth in which the power of reflection lies. With these facts before us, together with others proving beyond a doubt that all other things being the same, more water is evaporated in the same space of time in iron than in copper boilers, with the same amount of fuel, it is not possible that the present absurd and fallacious arguments can stand another year,—and their downfall must be hailed with pleasure by all who love the truth and progress of science,—and will inevitably lead to the perfecting of boilers made of that still most noble of all the metals, iron."

ST. MARY'S, ABBERLEY.—The foundation stone of the church of St. Mary, Abberley, Worcestershire, was laid on the 27th July, with full service and all the ceremonies, including dinner to several hundred parishioners, &c. The church is a gift from Mr. James Moilliet, as is the site also. It is geometric in style, has a tower and broach spire, will cost 5,800*l*. and has sittings for 350. Mr. John J. Cole is the architect. The inside, it is stated, will be peculiar, having arcades for future monuments, stone screens, &c.; and the whole inside will be of rubbed ashlar, with no plastering whatever.

THE MARBLE ARCH AT BUCKINGHAM PALACE.—The Commons have voted 1,000*l*. for taking down and putting up again the marble arch, and for new iron railings in front of the palace. Where the arch is to be put, however, the Chancellor of the Exchequer says he knows not.

ELECTION OF PENSIONERS: BUILDERS' BENEVOLENT INSTITUTION.—The reading of a not very clear sentence in the report led us, last week, to put down as dead a poor widow who is a candidate for election in *November* next: we notice the circumstance to prevent injury to the poor woman's prospects from such an inadvertence.

WORMS CATHEDRAL.—Are you correct in calling the *flat* end of Worms Cathedral the *west* end? I visited that building in the year 1848, and, according to my recollection, the flat end is next to the Rhine. Now, Worms being on the left, that is, on the western bank of that river, and the cathedral standing, in its length, at right angles to it, the end nearest the river must, of course, be the *east* end. The flat end has a semicircular inner wall, forming an apse, with perforations in it communicating with the windows in the flat external wall: it is here the principal altar stands. If I am wrong in what I have written, no doubt many of your readers can set me right.—J. M.

*** Hope calls it the west end.

THE VERNON COLLECTION.—The pictures bestowed on the nation by Mr. Vernon have been placed in Marlborough House, together with the other English works formerly in the National Gallery, and are now open to the public. The rooms are ill adapted to the purpose, and the majority of the pictures look worse than they did in the cellars of the Academy. Poor West would be sadly distressed if he were to flit back for a peep at "Cleombrotus;" and as to Hilton's large picture, there is no spot in the room where it can be seen. The rooms might have been much improved by raising the window-heads.

COLOSSAL STATUE.—A Frankfort journal states that the colossal statue of Bavaria, by Schwanthaler, which is to be placed on the hill of Seudling, surpasses in its gigantic proportions all the works of the moderns. The great toes are each 18 inches in length. In the head two persons could dance a polka very conveniently, while the nose might lodge the musician.

TREASURER OF THE ROYAL ACADEMY.—Mr. P. Hardwick has been appointed treasurer, instead of Sir Robert Smirke, who has resigned in consequence of continued indisposition.

STARTLING TENDERS FOR WINDSOR DRAINAGE:—

	Pipes.			Main Sewer.			Total.		
	£.	s.	d.	£.	s.	d.	£.	s.	d.
G. Kempster, Hampstead							7097	12	6
D. Thornbury, Lincolnsh	3082	14	8	3560	10	5	6623	5	1
Munday, London	3170	0	0	2980	0	0	6150	0	0
Jarvis, London	3295	1	6	2496	15	6	5791	17	6
Stacey, Eaton	3230	18	4	2524	2	6	5763	15	10
Cooper and Baker, Paddington Station	3003	0	0	2686	5	6	5689	5	6
Bedborough, Windsor							5680	0	0
Humphrey and Thurst, London							5361	0	0
Parill, Egham							5272	16	0
Lawrence, Windsor							5150	0	0
Brown, London	2400	0	0	2500	0	0	4900	0	0
Herber and Rais, Wellington-st., Blackfriars							4542	9	0
Johnson, London							4500	0	0
Hollis, Windsor							4135	0	0
Edwards, Slough							4100	0	0
Dethic, London	1912	0	0	1893	0	0	3805	0	0

TENDERS

For the erection of two houses, Gloucester-terrace, Paddington. Mr. George Morgan, architect. Quantities furnished.

J. Wilson	£4,661
Johns	4,500
Trigg	3,880
Simpson	3,850
Trego	3,815
Johnson and Pask	3,770
R. Lamner and Son (accepted)	3,698

For additions to the Gloucester Union Workhouse. Messrs. Jacques and Son, architects, Gloucester. Quantities supplied by the architects.

Harrison, Stonehouse	£1,146
Morgan and Blizard, Cheltenham	1,000
Bussell, Gloucester	1,020
Cowley, do.	940
Sims, do.	885
Clarke, do.	870
Jones, do.	865
Niblett, do.	800
Cholerton, Quidgley (accepted)	850

For building three new houses in George-street, Adelphi. Mr. Lockyer, architect. The quantities were not supplied.

Clements	£4,690
Ashby and Sons	4,465
Matthews	4,347
Trego	3,684

For Tolhampton Farm, near Kingsclere, and farm-buildings, for Mr. W. S. Portal. Mr. Thos. Kellyer, architect.

Thorne, Basingstoke	£1,132
Baldwin, Newbury	1,100

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